

CONTENTS

Capillary Rise and Capillary Movement of Moisture in Fine Sands. P. C. CARMAN.....	1
Factors Influencing Excretion of Nitrogen by Legumes. ORVILLE WYSS AND P. W. WILSON.....	15
Some Effects of Sheet Erosion on Soil Microbiological Activity. A. G. NORMAN AND A. S. NEWMAN.....	31
Differences in the Aggregation of a Prairie and a Gray-Brown Podzolic Soil. JOHN L. RETZER AND M. B. RUSSELL.....	47
Soil Reaction and Varietal Adaptation of Wheat. J. S. PAPADAKIS.....	59
Leaf Analysis and Plant Nutrition. G. W. CHAPMAN.....	63
Books.....	83
A Revised Nomenclature of Forest Humus Layers for the Northeastern United States. S. O. HEIBERG AND R. F. CHANDLER, JR.....	87
Factors Influencing the Availability of the Indigenous Phosphorus in an Acid Tropical Soil. J. E. A. DEN DOOP.....	101
Synthetic Soil as a Bacteriological Culture Medium. H. J. CONN AND JEAN E. CONN.....	121
Laboratory, Greenhouse, and Field Methods of Studying Fertilizer Needs of Orchard Soils. R. E. STEPHENSON AND C. E. SCHUSTER.....	137
Effect of Certain Orchard Practices on the Potassium Status of a New York Fruit Soil. WALTER REUTHER.....	155
A Double Centrifuge Tube for the Separation of Soil Minerals by Means of Heavy Liquids. CHARLES D. JEFFRIES.....	167
Soil Studies with Radioactive Phosphorus: Significance of Biological Measurements of the Retention of Applied Phosphorus by Soils. STANLEY S. BALLARD AND L. A. DEAN.....	173
Determination of Nitrate-Nitrogen with a Photoelectric Colorimeter. T. O. BERGE.....	185
Morphological Classification of Soil Structure. C. C. NIKIFOROFF.....	193
An Experimental Study on the Development of Adobe Structures in Soils. CHIA WEI CHANG.....	213
Some Effects of Volume Rate of Solution Supply and of Potassium Concentrations on the Growth of White Clover. GILBERT H. AHLGREN.....	229
The Importance of Sodium for Plant Nutrition: I. J. J. LEHR.....	237
Books.....	245
Forty-Year Studies of Nitrogen Fertilizers. A. L. PRINCE, S. J. TOH, A. W. BLAIR, AND F. E. BEAR.....	247
Replacement of Adsorbed Phosphate from Kaolinite by Fluoride. S. R. DICKMAN AND R. H. BRAY.....	263
Effect of Borax and Lime on Activity of Soil Microorganisms in Norfolk Fine Sandy Loam. W. J. HANNA AND E. R. PURVIS.....	275
An Important Effect of Soil Colloids on Plant Growth. J. S. PAPADAKIS.....	283
Colloidal Organic Acids as Factors in the Weathering of Anorthite. E. R. GRAHAM.....	291
Intake of Certain Elements by Calciphilic and Calciphobic Plants Grown on Soils Differing in pH. WILLIAM H. BENDER AND WALTER S. EISENMAYER.....	297
The pH of Irrigated Orchard Soils. A. R. C. HAAS AND O. C. COMPTON.....	309
Chemical Properties of Some Representative Samples of Certain Great Soil Groups and Their Relation to Genetic Soil Classification. L. T. KARDOS AND CLYDE C. BOWLSBY.....	335

Determination of Boron in Some Soils of Illinois and Georgia. E. E. DeTURK AND L. C. OLSON.....	351
The Survival of Microorganisms in Alkali Soils. J. E. GREAVES AND L. W. JONES.....	359
Sources and Distribution of Iodine in South Carolina with Special Reference to Types of Soil and Rocks. J. H. MITCHELL.....	365
The Importance of Sodium for Plant Nutrition: II. Effect on Beets of the Secondary Ions in Nitrate Fertilizers. J. J. LEHR.....	373
Influence of Microorganisms on Soil Aggregation and Erosion: II. JAMES P. MARTIN AND SELMAN A. WAKSMAN.....	381
The Interaction of Higher Plants and Soil Microorganisms: III. Effect of By-Products of Plant Growth on Activity of Fungi and Actinomycetes. M. I. TIMONIN.....	395
Books.....	415
Wind Erosion of Soil in Relation to Roughness of Surface. W. S. CHEPIL AND R. A. MILNE.....	417
The Organic Matter in Collington Sandy Loam and in the Eroded Material. JAMES P. MARTIN.....	435
Relation of Field Capacity to Moisture Equivalent in Soils of West Virginia. G. M. BROWNING.....	445
A Method of Preparing Soils for Petrographic Analysis. C. D. JEFFRIES.....	451
Foliar Diagnosis in Relation to Soil Heterogeneity. WALTER THOMAS AND WARREN B. MACK.....	455
Some Physicochemical Aspects of Soil Aggregates. H. E. MYERS.....	469
Studies of Clay Particles with the Electron Microscope: I. Shapes of Clay Particles. R. P. HUMBERT AND BYRON SHAW.....	481
Index.....	489

